

IDAHO DEPARTMENT OF FISH & GAME

Jerry M. Conley, Director

Mullan Hatchery

Annual Report



October 1, 1980 - September 30, 1981

by
Ivan Talbott
Fish Hatchery Superintendent I

TABLE OF CONTENTS

	<u>Page</u>
ABSTRACT	1
OBJECTIVES	3
INTRODUCTION	3
FISH PRODUCTION	4
FISH HEALTH	4
FISH TRANSFERS	4
FISH RELEASES	5
SPAWNTAKING OPERATIONS	6
FEED UTILIZED	6
HATCHERY MAINTENANCE	6
SPECIAL STUDIES	6
BROOD STOCK	7
ACKNOWLEDGEMENTS	7

LIST OF TABLES

Table 1. Eggs received at Mullah Hatchery, October 1, 1980 - September 30, 1981	4
Table 2. Fish transfers October 1, 1980 - September 30, 1981	4
Table 3. Catchable rainbow released October 1, 1980 - September 30, 1981	5

Mullan Hatchery

ABSTRACT

Mullan Hatchery and Rochat Pond are involved in the production of cutthroat fingerling for Hayden Lake. Mullan Hatchery produced cutthroat fry for mountain lakes and streams, kokanee fry for Pend Oreille Lake and Kootenai River rainbow for brood stock. Hayspur Hatchery transferred 69,393 catchables sized rainbow trout to be released in the Coeur d'Alene and St. Joe River drainages.

Spawning activities included helping to take eggs at Coeur d'Alene Lake and Pend Oreille Lake, cutthroat and rainbow spawning at Hayden Lake and the incubation of a portion of these eggs.

Author:

Ivan Talbott
Fish Hatchery Superintendent I

OBJECTIVES

The objectives of the Mullan Hatchery were to:

1. Receive eyed westslope cutthroat trout eggs from the Clark Fork Hatchery. From these eggs to make releases of fry in several mountain lakes and to release some 200,000 fingerling in Hayden Lake.
2. Receive 2,000,000 green kokanee eggs from Granite Creek on Pend Oreille Lake and Wolf Lodge Bay on Coeur d'Alene Lake to be hatched and released as advanced fry in Cabinet Gorge on the Clark Fork River.
3. Receive 72,800 catchable rainbow trout from Hayspur Hatchery and redistribute them in the central part of Region 1.
4. Rear 1979 and 1980 age class Kootenai River rainbow for future brood stock.
5. Receive 120,000 rainbow and rainbow x cutthroat hybrid eggs from the Hayden Creek trap to be incubated and released back into Hayden Creek as swim-up fry.
6. Provide support for spawning operations at Granite Creek on Pend Oreille Lake, Wolf Lodge Bay on Coeur d'Alene Lake and at the Hayden Creek trap.
7. Rear 50,000 westslope cutthroat trout in Rochat Pond from yearling fingerlings to maximum size second year of life fish to be planted in Hayden Creek for future brood stock.

INTRODUCTION

Mullan Hatchery is located four miles east of Mullan, Idaho and consists of:

- 3 raceways - 4 feet by 65 feet by 2 feet deep
- 2 raceways - 6 feet by 65 feet by 1 foot 8 inches deep
- 1 raceway - 12 feet by 65 feet by 1 foot 8 inches deep
- 2 raceways - 6 feet by 65 feet by 3 feet deep
- 1 pond - 30 feet by 168 feet by 3 feet deep
- 1 pond - 25 feet by 132 feet by 3 feet deep
- 1 pond - 35 feet by 78 feet by 3 feet deep
- 19 vats - 13 feet 6 inches by 2 feet 4 inches by 1 foot 8 inches deep

The hatchery receives water from the South Fork of the Coeur d'Alene River, the Little North Fork of the Coeur d'Alene River, and the domestic water and the water for the incubators comes from a small unnamed creek to the south of the hatchery.

The hatchery requires three to four cfs from all three sources to operate. During the months of August, September and October the water supply becomes critical at times. The water temperature ranges from 33° F in January to 58° F in August.

. The Mullan Hatchery building and grounds are owned by the Shoshone County Sportsman Association. A mill levy is raised by the Shoshone County tax rolls to pay for the maintenance of the buildings and grounds. The Idaho Department of

Fish and Game staffs the permanent personnel and provides the trucks and fish production costs for the station.

Rochat Pond is located ten miles up the St. Joe River from St. Maries, Idaho, and consisting of a pond 300 feet by 45 feet by 4 feet deep. It is used for supplemental rearing of westslope cutthroat for Region 1.

FISH PRODUCTION

During the 1980-1981 fish year the hatchery produced rainbow, rainbow x cutthroat hybrid, Kootenai River rainbow, kokanee and westslope cutthroat. Some 2,785,057 eggs were incubated (Table 1).

Table 1. Eggs received at Mullan Hatchery, October 1 1980 - September 30, 1981.

Species	Origin	Number green	Loss	Percent eye up	Hatch	Percent hatch
Kokanee	Coeur d'Alene Lake and Pend Oreille Lake	1,932,207	135,254	93	1,355,075	70
Rainbow Cutthroat Hybrid	Hayden Creek	221,175	21,925	90	178,425	81
Cutthroat	Clark Fork Hatchery				631,675	97

In the 1980-1981 fish year 3,285 pounds of fish were produced.

FISH HEALTH

Disease problems were very minor. There was an outbreak of bacterial gill disease in the cutthroat fry that coincided with a period of low water flow and dusty feed. The loss raised the monthly mortality from less than 1% to 3.3%.

FISH TRANSFERS

The Kootenai River rainbow that were transferred to Montana State University were used to check the genetic background with the use of electrophoresis. The cutthroat transferred from Rochat Pond to Clark Fork Hatchery will be used as replacement brood fish (Table 2).

Table 2. Fish transfers October 1, 1980 - September 30, 1981.

Date	Receiving station	Species	Size	
<u>Mullan Hatchery</u> 6/30/81	University	Kootenai River rainbow	160/lb.	130

Table 2 (continued).

Date	Receiving station	Species	Size	Number
Rochat Pond				
4/13/81	Clark Fork Hatchery	westslope cutthroat	7.5/lb.	3,000
4/20/81	Clark Fork Hatchery	westslope cutthroat	7.5/lb.	3,000

FISH RELEASES

Mullan Hatchery released 2,112,745 fish for a total of 32,603 pounds, this included 174,000 rainbow fry, 424,352 westslope cutthroat fry, 137,880 westslope cutthroat fingerling, 2,380 Kootenai River rainbow, 1,281,752 kokanee fry and 69,393 catchable rainbow.

Catchable rainbow releases:

Mullan Hatchery is in part a redistribution station for catchable rainbow trout that were reared at Hayspur Hatchery. The catchable fish were released from May through the middle of August (Table 3).

Table 3. Catchable rainbow released October 1, 1980 - September 30, 1981.

Name of water	Number	Pounds	Size/lbs.
Coeur d'Alene River	20,280	7,800	2.4 - 3.0
North Fork Coeur d'Alene River	5,515	2,150	" "
South Fork Coeur d'Alene River	2,678	1,045	" "
St. Joe River	9,760	3,600	" "
North Fork St. Joe River	5,130	1,350	" "
St. Maries River	5,460	2,100	" "
Marble Creek	2,250	900	" "
Big Creek	1,920	800	" "
Spirit Lake	4,000	1,600	" "
Fernan Lake	6,900	2,800	" "
Lower Glidden Lake	1,950	780	" "
Elsie Lake	1,600	1,000	" "

Table 3 (continued).

Name of water	Number	Pounds	Size/lbs.
Day Pond	125	50	2.4 - 3.0
Eagle Pond	1,000	400	
Gold Creek Pond	825	275	
Total	69,393	26,650	

Cutthroat releases:

Mullan Hatchery and Rochat Pond released 5,640 pounds of cutthroat fingerling in Hayden Creek for a total of 134,243 fish, of these 129,180 came from Mullan and 5,063 came from Rochat Pond. Cutthroat fry were released in 30 lakes and one stream. The Forest Service planted 16 high mountain lakes with a fire spotter plane.

Kokanee releases:

The kokanee that originated in Coeur d'Alene Lake and Granite Creek on Pend Oreille Lake were released in the Clark For River at Cabinet Gorge. Out of the 1,932,075 eggs taken 1,355,075 fry were returned to the river.

SPAWNTAKING OPERATIONS

Mullan Hatchery personnel were involved in spawntaking activities for kokanee at Coeur d'Alene Lake and Pend Oreille Lake and rainbow and cutthroat spawning at the trap in Hayden Creek. Some of the eggs from each of these operations were incubated at Mullan.

FEED UTILIZED

The cutthroat, Kootenai River rainbow and kokanee fry were fed Oregon Moist Pellet II fish food. The rainbow trout received from Hayspur Hatchery for redistribution were fed dry 5/32 pellets produced by Rangen Inc. In the 1980-1981 fish year 3,285 pounds of fish were produced with 9,000 pounds of feed. This gives a conversion factor of 2.74. The total cost of the feed was \$2,989.33 which made each pound of fish produced cost \$0.908.

HATCHERY MAINTENANCE

Most of the hatchery building and the apartment building were scraped, etched and painted by the summer CETA help. One of the garages was jacked into shape and then some internal braces were put in place. The screen was replaced on 59 incubator trays.

SPECIAL STUDIES

All of the kokanee fry that were reared at the Mullan Hatchery were treated with ten percent terramycin in their feed for 14 days. This put a strong mark on the fry so that they can be identified as hatchery fish when they are sampled in the lake and at spawning time.

BROOD STOCK

The 1979 and 1980 year class Kootenai River rainbow are being saved for brood stock and will probably produce eggs in 1983.

ACKNOWLEDGEMENTS

Hatchery staff for this year:

Ivan Talbott	Hatchery Superintendent I
Mary Jutila	Temporary Laborer at Mullan
Theodore Mueller	Temporary Laborer at Rochat Pond
Richard Smith	CETA Employee
Bobbi Denius	CETA Employee
Billi Denius	CETA Employee
Ted Gohl	CETA Employee